



福建福特科光电股份有限公司

Foctek Photonics, Inc.

镜头参数 (Parameter of Lens)

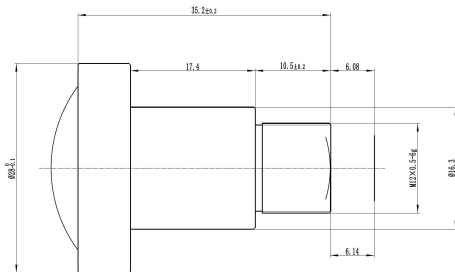
型号 (Model) :

M12-3.2IR (12MP)



分辨率 (Resolution)	12 Megapixel			
像面尺寸 (Image format)	1/1.7"			
焦距 (Focal length)	3.2mm			
通光孔径 (Aperture)	F2.0			
接口 (Mount)	M12			
视场角 (Field Angle) D×H×V(°)	$\gamma$	1/1.7	1/1.8	1/2.3
	D	160	153.6	136
	H	131	129	113.5
	V	99	88	83
畸变 (Optical Distortion)	-64% (max)			
主光束入射角 (CRA)	≤11.14°			
最近物距 (M.O.D.)	0.3m			
外形尺寸 (Dimension)	Φ28×38.9mm			
重量 (Weight)	25g			
法兰后焦距 (Flange BFL)	/			
光学后焦距 (BFL)	6.14mm			
机械后焦距 (MBF)	6.08mm			
日夜共焦 (IR Correction)	Yes			
操作方法 (Operation)	光圈 (Iris)	固定光圈 (Fixed)		
	聚焦 (Focus)	/		
	变焦 (Zoom)	/		
工作温度 (Operating temperature)	-20°C~+70°C			

尺寸 (Size)



尺寸公差 Size tolerance (mm) :	0-10±0.05	10-30±0.10	30-120±0.20
角度公差 Angle tolerance	±2°		



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检测标准 (Test Standard)

型号 (Model):

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检测项目 Test Items

检测内容 Test Content

1	逆投影检测 Resolution Test	Test Range	Φ8 (diameter 0.8m)
		Center $\geq$	200 lp/mm
		edge $\geq$	200 lp/mm
		Image standard	The image should be clear.
环境 Environment		25±2℃, ≤1 lux Dark room	

2	外观检测 Appearance Inspection	Apperance (Inner barrel)	60-40: The maximum scratch width is allowed to be 0.06mm, the length allows the 1/4 edge position of the lens; the visually invisible fineness is negligible; the maximum diameter of the pip is allowed to be 0.2mm, and only one lens surface is allowed; the pip is smaller than 0.002mm~0.005m can be neglected; the film color is uniform; there is no obvious color spot on the surface.
		Apperance (Outer barrel)	The lens barrel has no obvious color difference, scratch, break, deformation; the glue is not allowed to overflow into the effective light path; no word drop, clear writing, the same font size, even spacing, etc.
	环境 Environment		25±2℃ 700~1000 lux



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环境可靠性测试 (Reliability and Environmental Testing)

型号 (Model) :

M12-3.2IR(12MP)

检测项目 Test Items

检测内容 Test Content

1

温度循环试验  
Temperature Cycling Test

镜头在试验温度 $(-20\pm 3)^{\circ}\text{C}$ 放置1.5小时,  $(70\pm 3)^{\circ}\text{C}$ 放置3小时  
的条件下, 放置2个循环。试验后, 将镜头放置于室温24小时后进行  
检验, 各指标均合格。

Lens is placed on two cycles in the test temperature  $(-20\pm 3)^{\circ}\text{C}$  for 1.5 hours and in  $(70\pm 3)^{\circ}\text{C}$  for 3 hours  
separately. Then, the indicators are qualified after  
placing the lens at room temperature for 24 hours.

2

高温高湿试验  
Damp heat test

镜头在试验温度 $(70\pm 3)^{\circ}\text{C}$ , 湿度85%RH的条件下, 放置48小时。  
试验后, 将镜头放置于室温24小时后进行检验, 各指标均合格。

Lens is placed in the test temperature  $(70\pm 3)^{\circ}\text{C}$ ,  
humidity 85% RH for 48 hours.  
Then, the indicators are qualified after placing the lens  
at room temperature for 24 hours.

3

跌落试验  
Drop Test

镜头在1米高 $(\pm 0.1\text{m})$ 处, 自由跌落到混凝土地板上。  
试验后, 镜头各指标均合格。

Lens drops from the height of  $(1\pm 0.1\text{m})$  to the concrete  
ground.  
After the testing, the indicators are qualified.

4

振动试验  
Vibration Test

镜头正弦波振动2小时, 在振幅为1mm, 频率为50Hz的条件下, 试验  
后, 镜头各指标均合格。

Lens vibrates 2h in sinusoidal wave under 1 mm of  
amplitude and 50Hz of frequency.  
After the testing, the indicators are qualified.



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包装规格 (Packing Specification)

型号 (Model) :

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1. Stick label on the surface of lens after capped.
2. Put the lens into the carton box.
3. The unit will be packaged in a corrugated box.
4. Seal the corrugated box with tape and mark the surface.

